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A NEW SPECIES OF *YELICONES* CAMERON (HYMENOPTERA: BRACONIDAE) FROM THAILAND

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Abstract.—*Yelicones siamensis* Areekul & Quicke, NEW SPECIES is described and illustrated based on two adult females collected at light in Thailand. This wasp is the ninth species of *Yelicones* described from the East Palaearctic and Oriental regions. A modification to the key of Quicke et al. (1997: J. Nat. Hist. 31: 779–797) is included to differentiate *Y. siamensis* from similar species.

Key Words.—Insecta, Hymenoptera, Braconidae, *Yelicones,* Thailand.

Wasps of the genus *Yelicones* Cameron are solitary endoparasitoids of lepidopteran larvae, whose remains they mummify before pupating within the host (Quicke & Chishti 1997). For many years after its original description (Cameron 1887) the genus was known only from a handful of specimens from the New World (Shenefelt 1975, Quicke & Kruft 1995). However, over the last 20 years a number of new species have been described, extending the known range of *Yelicones* into the Indo-Australian, Afrotropical and Palaearctic regions. The genus is now known to be widely distributed throughout the Old and New Worlds (Fischer 1961, 1962 [as *Pectenopius* Fischer]; Togashi 1980; Papp 1985, 1989, 1991, 1992; Belokobylskij 1993a, b; Quicke & Kruft 1995; Quicke et al. 1996, 1997, 1998; Quicke & Chishti 1997; Shaw 1998).

In this paper a new species of *Yelicones* is described based on two female specimens from Thailand, the ninth for the East Palaearctic and Oriental regions (Quicke et al. 1997). It is being described because it has been used to generate DNA sequence data which will be published elsewhere as part of another study. Male morphology and biology are unknown. The genus *Yelicones* can be recognized using the keys of van Achterberg (1995), Chen and He (1997) or Shaw (1997). A brief diagnosis is provided below.

MATERIALS AND METHODS

Two specimens were collected by light trapping in Chon Buri, Thailand and preserved in absolute alcohol. Three legs on one side of the body were taken from the paratype specimen for DNA sequencing and both specimens were then mounted for description and photography. Measurements were made with an eyepiece micrometer graticule. Terminology follows van Achterberg (1979, 1988) and Quicke et al. (1997).

Genus *Yelicones* Cameron, 1887

Yelicones Cameron 1887: 387; van Achterberg, 1995: 147 (literature). Type species, *Yelicones violaceipennis* Cameron, designated by Viereck (1914).

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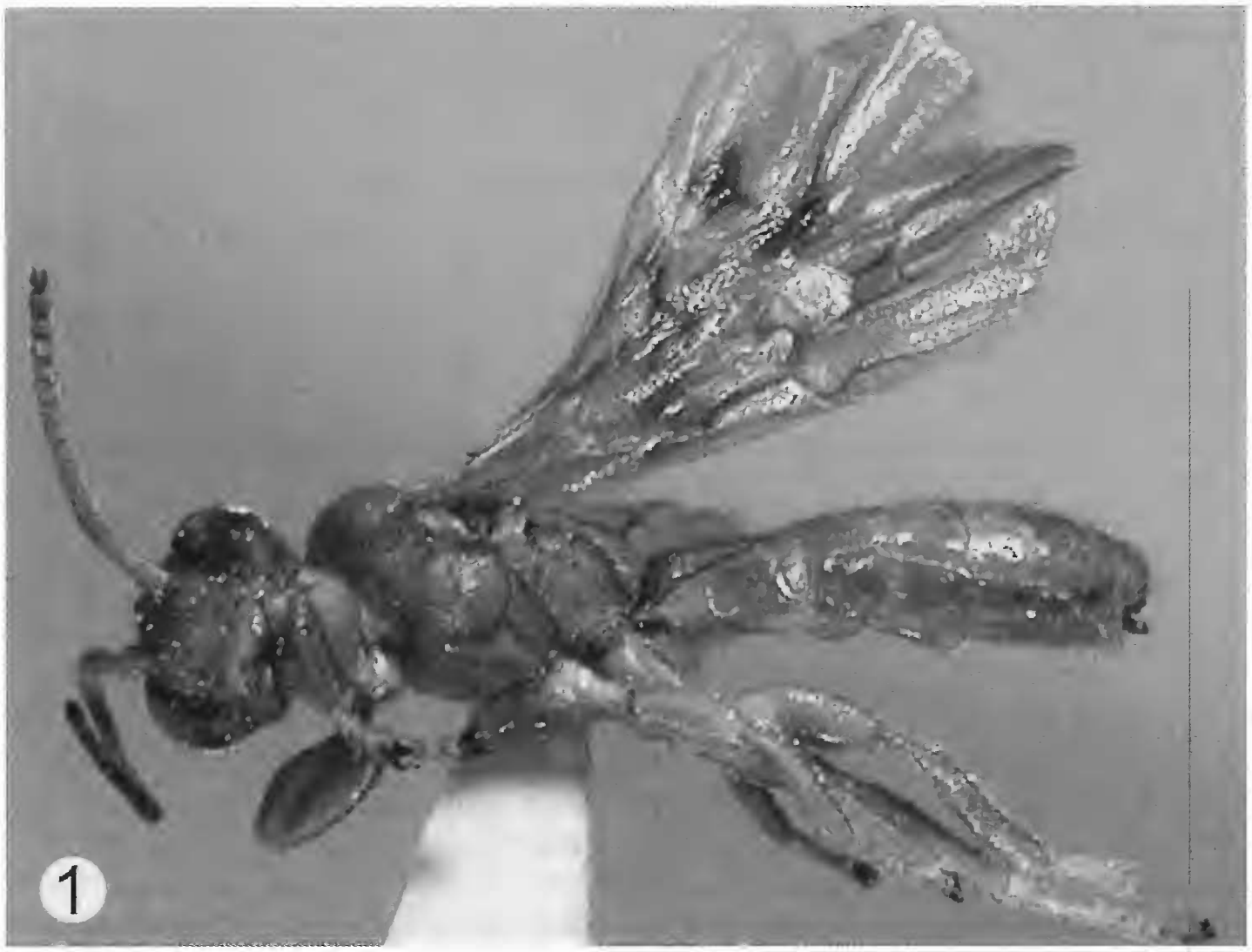


Figure 1. *Yelicones siamensis* NEW SPECIES, female holotype.

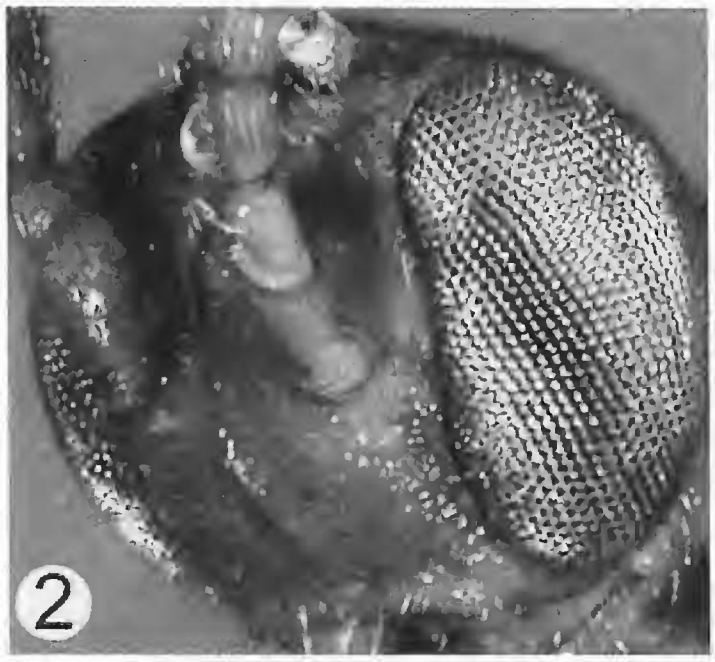
Rhopalotoma Cameron 1911: 318. Type species, *Rhopalotoma crassitarsis* Cameron, monotypic.

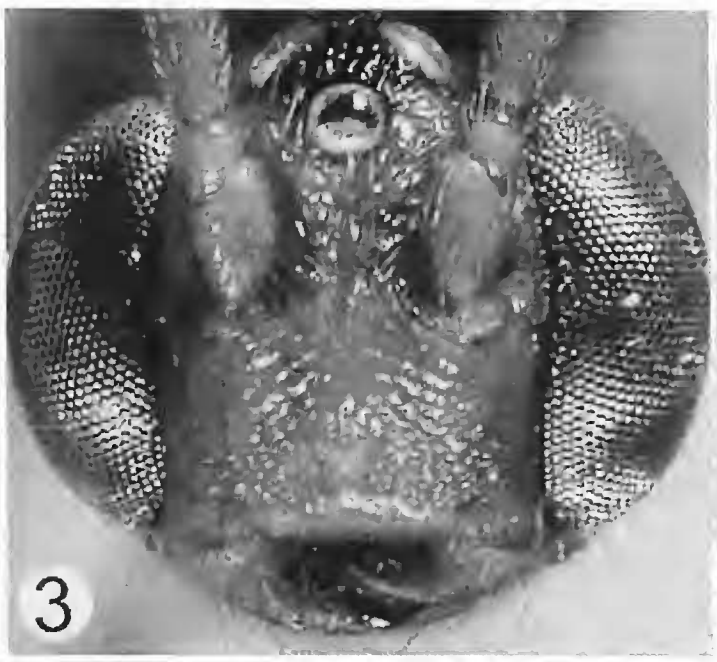
Pectenopius Fischer 1961: 156. Type species, *Pectenopius paradoxus* Fischer, original designation.

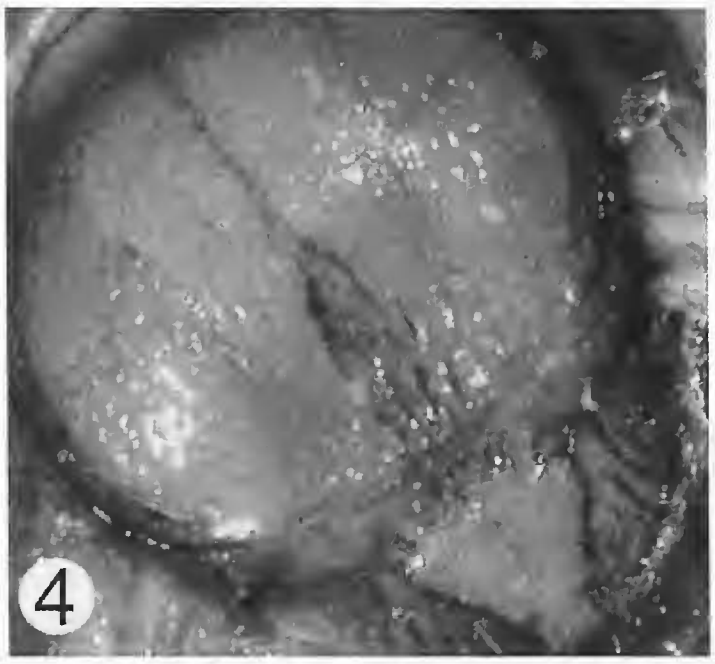
Yelicones siamensis Areekul & Quicke, NEW SPECIES

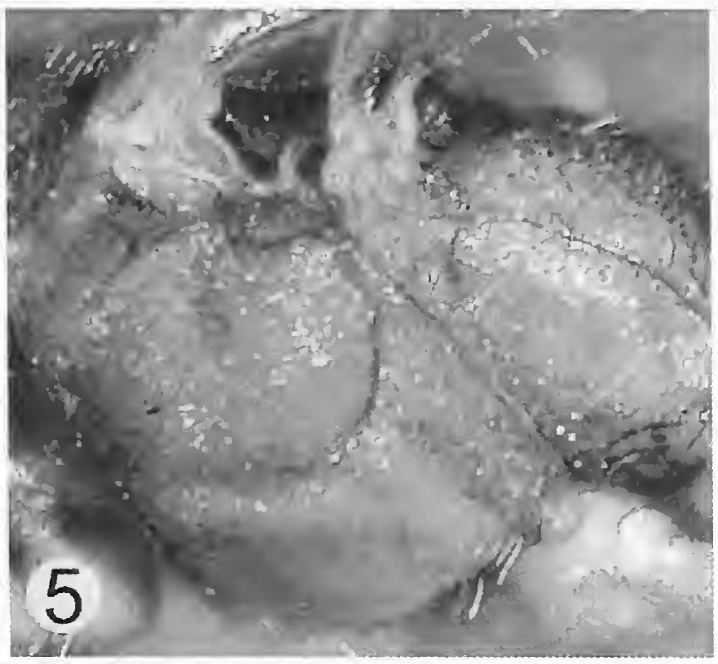
Types.—Holotype, female (Fig. 1); data: THAILAND. *CHON BURI:* Khao Kheow, 20–31 March 2001, D. L. J. Quicke and N. Laurenne, light trap; deposited: British Museum (Natural History). Paratype: same data as holotype, 1 female; deposited Insect Collections of Chulalongkorn University, Bangkok, Thailand.

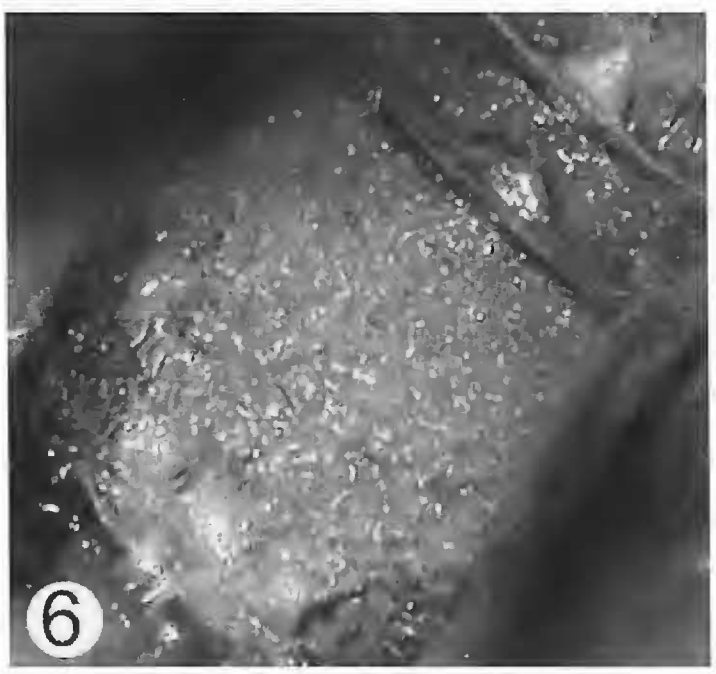
Description.—Female (holotype) *Length.* Body 4.5–5.0 mm, and fore wing 3.5 mm. (Fig. 1). *Color.* Yellow, antennae yellow basally, gradually brown on distal 0.4; wing veins dark brown, pterostigma basal 0.4 ivory, distal 0.6 dark brown (Fig. 1). *Head.* Antennae with 26 flagellomeres, terminal flagellomere pointed, approximately 2.3× longer than wide; first flagellomere 1.1× and 1.4× longer than the second and third respectively; first flagellomere 1.4× longer than wide; third flagellomere as long as wide; malar space unsculptured, length of malar space 0.04× height of eye; height of clypeus: inter-tentorial distance: tentorio-ocular distance = 1.0: 3.4: 0.8; clypeus slightly punctate, with long, dense setae; face with subtransverse carinae below the antennal sockets, punctate ventrally (Fig. 2), densely covered with long setae, with weak but distinct mid-longitudinal ridge (Fig. 3); height of eye: width of face: width of head = 1.0: 0.9: 1.7; length of face = 0.5× width of face; eyes glabrous; frons with sparse, long setae, impressed behind the antennal socket, mid-longitudinal ridge strongly developed, posteriorly with two curved transverse carinae; occiput and temples densely punctate; horizontal length of eye: horizontal length of head behind eye = 1.6: 1.0; post-ocellar length: trans-



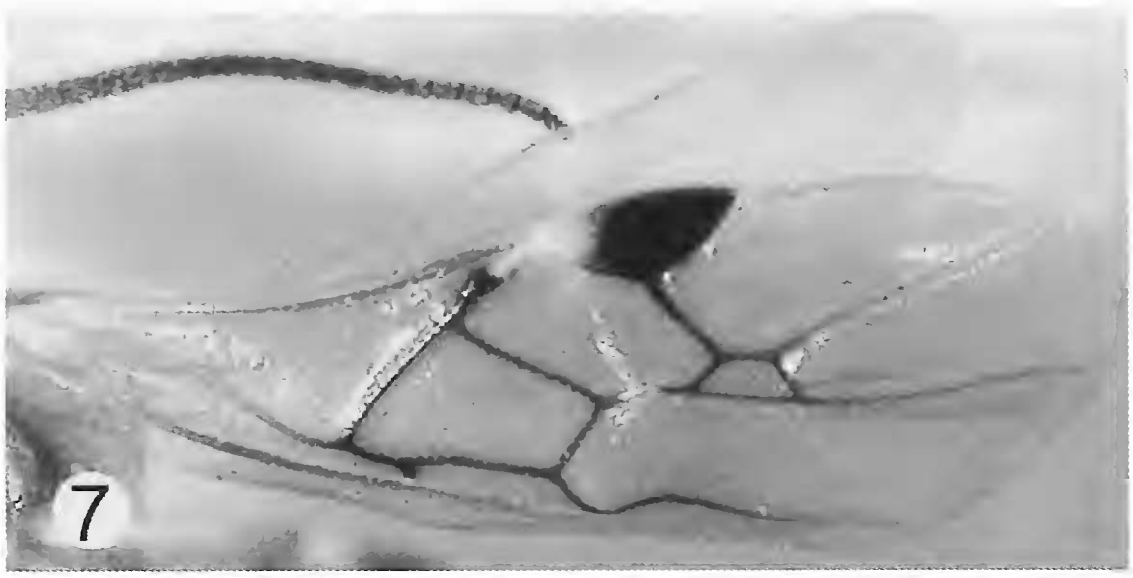


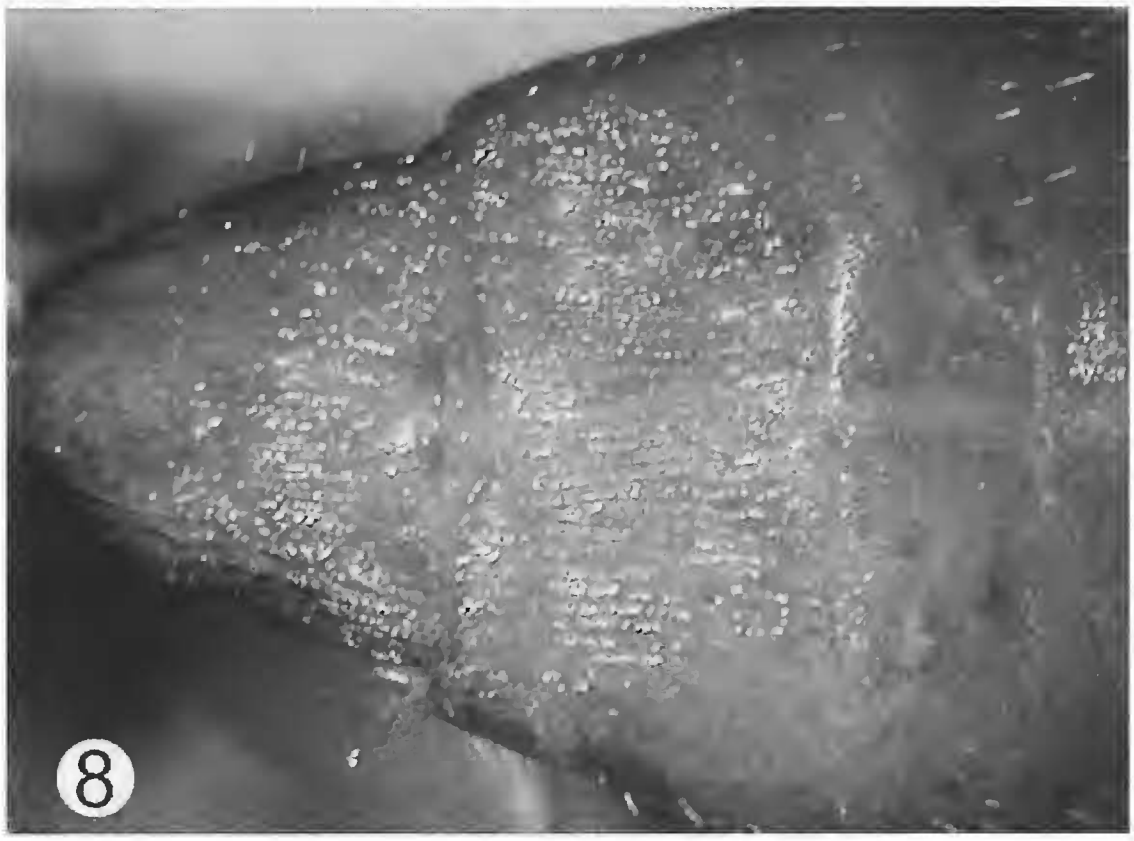






Figures 2–6. *Yelicones siamensis* NEW SPECIES. Figure 2, front view of head. Figure 3, front and lateral aspect of head. Figure 4, mesoscutum. Figure 5, lateral view of prothorax. Figure 6, propodeum.





Figures 7–8. *Yelicones siamensis* NEW SPECIES. Figure 7, fore wing. Figure 8, dorsal view of metasomal tergites 1–3.

verse diameter of posterior ocellus: shortest distance between posterior ocellus and eye = 1.0: 2.0: 2.7; occipital carina nearly complete, absent for a small distance medially. *Mesosoma.* Shiny, densely punctured and setose, 1.8× longer than high; mesoscutum postero-medially with longitudinal groove-like impressions (Fig. 4); notauli weakly impressed throughout length of mesoscutum; scutellar sulcus with 7 carinae between the two outer ones; scutellum shiny and sparsely setose with small punctures; median area of metanotum medially without pit (Fig. 6); mesopleuron densely setose, with transverse carinae anteriorly, densely punctate posteriorly; precoxal suture weakly impressed, crenulate, upcurved posteriorly, impressed 0.8 length of mesopleuron (Fig. 5); propodeum strongly aerolate-rugose, antero-medially without a prominent U- or V-shaped carina (Fig. 6). *Wings. Fore wing*—length of veins SR1: 3SR: r = 3.3: 0.4: 1.0; vein 1-SR+M more or less straight; vein r arising 0.5 distance from base of pterostigma; length of veins 2-SR: 3-SR: r-m = 1.0: 1.0: 1.1; length of veins 2-SR+M: 2-M: m-cu = 1.0: 0.7: 0.7; length of veins 2-CU1: 3-CU1 = 2.4: 1.0; veins C+SC+R and 1-SR forming an angle of 60° (Fig. 7). *Hind wing*—length of veins 1r-m: SC+R1 = 1.0: 1.8; vein 2-SC+R interstitial; vein SR posteriorly weak, more or less straight at apex; vein 2m-cu strongly postfurcal, length of vein 1M 4.4× vein 2M, vein 2m-cu more or less straight; marginal cell, basal cell and base of wing densely setose. *Legs.* Length of fore femur: tibia: tarsus = 1.0: 1.3: 1.0; fore femur 2.0× longer than maximum depth; fore tibia without mid-longitudinal ridge; hind femur 2.7× longer than maximum depth; length of hind femur: tibia: basitarsus = 1.8: 2.5: 1.0; hind basitarsus 3.4× longer than maximally depth.

Metasoma. Metasomal tergites shiny, first and second tergite with sparse setae, 3rd–8th tergites moderately setose; first and second tergite with punctate-rugulose sculpture; first metasomal tergite 1.3× wider than medially long, dorsal carina weakly impressed, uniting before the level of spiracles; second metasomal tergite 2.4× wider than medially long, without smooth triangular area anteriorly and without mid-longitudinal carina; second suture narrow, smooth; third metasomal tergite 2.4× wider than medially long; third tergite anteriorly finely punctate, posteriorly smooth (Fig. 8); 4th–6th metasomal tergites smooth. Tip of ovipositor pale.

Diagnosis.—Yelicones siamensis Areekul & Quicke keys out to couplet 8 using the key to East Palaearctic and Oriental species of *Yelicones* (Quicke et al. 1997). It can be distinguished from *Y. flavus* Chen and Quicke by the following characters: face not transversely imbricate; mesoscutum postero-medially rugose; fore wing vein 1-SR+M more or less straight not sinuous; hind wing vein 2-SC+R interstitial not transverse; dorsal carinae of first metasomal tergite uniting anteriorly not near mid-length, without median carina; second metasomal tergite anterior-medially without smooth triangular area and mid-longitudinal carina; color yellow, wings without distinct pattern of brownish blotches, pterostigma bicolored not unicolorous.

Modification to the key to the species of *Yelicones* of the East Palaearctic and Oriental region (Quicke et al. 1997) to accommodate the new species.

8(7). Mesoscutum with line of notauli piceous on anterior two thirds and usually with a dark line connecting them in front of the posterior margin; propleuron and fore coxae whitish ..... *Y. koreanus* Papp

\- Mesoscutum uniformly yellow-brown; propleuron and fore coxae brownish yellow 8a

8a(8). Forewing with distinct pattern of brownish blotches; pterostigma uniformly, pale brown; antennae with 33 flagellomeres; second metasomal tergite antero-medially with smooth triangular area .... *Y. flavus* Chen and Quicke

\- Forewing without distinct pattern of brownish blotches; pterostigma bicolored, whitish basally, brown distally; antennae with fewer than 33 flagellomeres; second metasomal tergite antero-medially without smooth triangular area ..... *Y. siamensis* NEW SPECIES

Variation in Females.—Body length 4.5–6.0 mm; antennae with 26–28 flagellomeres; mesoscutum postero-medially with punctate-rugose sculpture or longitudinal groove-like impressions; scutellar sulcus with 6–7 carinae between the outer ones.

Male.—Unknown.

Distribution.—Thailand.

Etymology.—The name is derived from the old name for Thailand.

Material Examined.—See Types.

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